

## CLAIMS:

1. Method of recording multiple sets of data on at least one data carrier (20), comprising the steps of:
  - reading program information regarding at least two different sets of data to be recorded on the at least one data carrier in a timed recording sequence, which information
  - 5 comprises the length of time used by each set of data when being played, (step 34),
  - calculating the recording length of all sets of data, (step 36),
  - determining the available recording space on the at least one data carrier for all unrecorded sets of data of the timed recording sequence, (step 38),
  - setting a recording quality for all sets of unrecorded data in the timed
  - 10 recording sequence so as to enable all sets of data to be fitted to the available space,
  - recording a set of data with the set recording quality, (step 40), and
  - repeating the steps of determining, setting and recording for each set of unrecorded data, until all sets have been recorded.
- 15 2. Method according to claim 1, wherein the program information concerning one set of data comprises a fixed recording quality, and the step of setting a recording quality comprises setting the fixed recording quality to said one set of data and setting a recording quality for the other sets of data such that said other sets of data can be fitted to the available
- 20 space.
3. Method according to claim 1, further comprising the steps of reading program information regarding another set of data not provided in the timed recording sequence, determining whether the new set of data can be included in the timed recording sequence at least with the lowest possible recording quality, and, if possible, including the added set of
- 25 data in the sequence.
4. Method according to claim 1, further comprising the steps of identifying a manual recording of a set of data on the at least one data carrier, determining whether unrecorded sets of data in the timed recording sequence can be recorded with at least the

lowest possible recording quality on the at least one data carrier when the manual recording has ended and changing the recording quality, if possible and necessary.

- 5           5.           Method according to claim 1, wherein the available recording space is determined by a start marker and an end marker related to the at least one data carrier.
6.           Method according to claim 5, wherein the start marker is a positional pointer and the end marker is an end of carrier marker.
- 10       7.           Method according to claim 5, wherein the start and end markers are user defined start and end markers.
8.           Method according to claim 5, further comprising the step of changing the available recording space by moving the start marker.
- 15       9.           Method according to claim 1, further comprising the steps of detecting the removal of program information relating to a set of data and repeating the steps of determining, setting and recording for each set of unrecorded data for the remaining unrecorded sets of data after said removal.
- 20       10.           Method according to claim 1, wherein the recording space of the at least one data carrier where the timed recording sequence is to be stored comprises at least one protected area splitting said available recording space into fragments, wherein the step of setting a recording quality comprises adjusting the recording quality for unrecorded sets of data to fit into the fragments and further comprises the step of selecting unrecorded sets of data for storage in fragments having a large enough size.
- 25       11.           Device for recording multiple sets of data on at least one data carrier (20) comprising:
- 30           a recorder (16) arranged to record at least two sets of data on the at least one data carrier,
- a storage medium controller (18) for receiving the at least one data carrier, at least one program timer (24, 26, 28) comprising program information regarding at least two different sets of data, which information comprises the length of time

used by each set of data when being played, and

a control unit (22) arranged to

read the program information regarding said at least two sets of data

which are to be recorded on said at least one data carrier in a timed recording sequence,

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calculate the recording length of all sets of data,

determine the available recording space on the at least one data carrier for all unrecorded sets of data of the timed recording sequence,

set a recording quality for all sets of unrecorded data in the timed recording sequence so as to enable all sets of data to be fitted to the available space,

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order the recorder to record a set of data with the set recording quality, and

repeat the steps of determining, setting and ordering to record for each set of unrecorded data, until all sets have been recorded.

15 12. Device according to claim 11, further comprising a receiver (14) for receiving media streams corresponding to sets of data to be recorded.

13. Device according to claim 11, wherein the program information concerning one set of data comprises a fixed recording quality, and the step of setting a recording quality  
20 comprises setting the fixed recording quality to said one set of data and setting a recording quality for the other sets of data such that said other sets of data can be fitted to the available space.

14. Device according to claim 11, wherein the control unit is further arranged to  
25 read program information regarding another set of data not provided in the timed recording sequence, and to determine whether the new set of data can be included in the timed recording sequence, at least with the lowest possible recording quality, and to include the added set of data in the sequence, if possible.

30 15. Device according to claim 11, wherein the control unit is further arranged to identify a manual recording by a user of a set of data on the at least one data carrier, and to determine if unrecorded sets of data in the timed recording sequence can be recorded with at least the lowest possible recording quality on the at least one data carrier when the manual recording has ended and to change the recording quality, if possible and necessary.

16. Device according to claim 11, wherein the available recording space is determined by a start marker and an end marker related to the at least one data carrier.
- 5 17. Device according to claim 16, wherein the start marker is a positional pointer and the end marker is an end of carrier marker.
18. Device according to claim 16, wherein the start and end markers are user defined start and end markers.
- 10 19. Device according to claim 16, wherein the control unit is further arranged to order the storage medium controller to move the start marker in order to change the available recording space.
- 15 20. Device according to claim 11, wherein the control unit is further arranged to detect the removal of program information relating to a set of data from the program timer and to repeat the steps of determining, setting and recording for each set of unrecorded data for the remaining unrecorded sets of data after said removal.
- 20 21. Device according to claim 11, wherein the recording space of the at least one data carrier where the timed recording sequence is to be stored comprises at least one protected area splitting said available recording space into fragments, and the control unit is further arranged to adjust, when setting a recording quality, the recording quality for unrecorded sets of data to fit into the fragments and to select unrecorded sets of data for
- 25 storage in fragments having a large enough size.